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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,365	02/11/2004	Yoshikatsu Itoh	188-96	3208

28249 7590 02/06/2006

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EXAMINER

MARTIN, LAURA E

ART UNIT	PAPER NUMBER
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2853

DATE MAILED: 02/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/776,365	ITOH ET AL.	
	Examiner	Art Unit	
	Laura E. Martin	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5-12-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Hilgenfeld et al. (US 6391388).

As per claim 1, Hilgenfeld et al. teaches an ink jet set for ink jet printing comprising inks of inorganic pigments as colorants, characterized in that a red color component of the ink set contains at least two color inks which are magenta ink of gold purple and red ink of cadmium red (column 5, lines 6-10).

As per claim 2, Hilgenfeld et al. teaches an ink jet set for ink jet printing comprising inks of inorganic pigments as colorants which are magenta ink of gold purple and red ink of cadmium red as red components, as well as yellow ink and cyan ink (column 5, lines 6-10).

As per claim 3, Hilgenfeld et al. teaches an ink set for ink jet printing wherein said yellow ink is cadmium yellow ink and said cyan ink is cobalt aluminum chrome blue ink (column 5, lines 6-10).

As per claims 4, Hilgenfeld et al. teaches an ink jet set for ink jet printing, comprising at least five color inks of inorganic pigments as colorants which are magenta ink of gold purple and red ink of cadmium red as red components, as well as yellow ink of cadmium yellow and cyan ink of cobalt aluminum chrome blue (column 5, lines 6-10), and black ink (column 5, lines 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hilgenfeld et al. (US 6391388) in view of Minami (US 6741386).

Hilgenfeld et al. teaches the ink set of claim 4; however, it does not disclose black ink of cobalt ferrite black.

Minami discloses cobalt ferrite black ink (column 9, lines 1-8)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink set taught by Hilgenfeld et al. with the ink taught by Minami in order to provide a higher quality baked color.

Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hilgenfeld et al. (US 6391388) in view of Oishi et al. (JP 2001-081363).

As per claim 6, Hilgenfeld et al. teaches a printing method which comprises printing on a base material using the ink set taught in claim 1 to form an image on a base material and thereafter performing baking (column 4, lines 45-65).

As per claim 7, Hilgenfeld et al. teaches the base material is an inorganic material and an ink receptor layer is formed using glass frit on a surface of the base material.

As per claim 9, Hilgenfeld et al. teaches a printed matter (C6, L10-11).

Hilgenfeld et al. does not teach ink jet printing (claim 6), an ink receptor layer formed using glass frit on a surface of the base material prior to ink jet recording (claim 7), a method wherein after the printing and image formation for said base material using an ink jet, all of the inorganic pigments are baked simultaneously to the base material by a single baking operation (claims 8 and 10).

Oishi et al. teaches (claim 6) ink jet printing [0001], (claim 7) an ink receptor layer formed using glass frit on a surface of the base material prior to ink jet recording [0008], (claims 8 and 10) a method wherein after the printing and image formation for said base material using an ink jet, all of the inorganic pigments are baked simultaneously to the base material by a single baking operation [0025-0026].

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Hilgenfeld et al. with the disclosure of Oishi et al. in order to provide an easy method of transferring ink to the base material.

Art Unit: 2853

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura E. Martin


2/3/06
MANISH S. SHAH
PRIMARY EXAMINER